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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,828	05/04/2001	Zachary A. James	RSW9-2001-0077-US1	7479

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EXAMINER

RIES, LAURIE ANNE

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/848,828

Applicant(s)

JAMES ET AL.

Examiner

Laurie Ries

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: amendment, filed 9/24/2004, to the original application filed 5/4/2001.
2. The objection to the specification has been withdrawn as necessitated by amendment.
3. The rejection of claim 24 under 35 U.S.C. 112 has been withdrawn as necessitated by amendment.
4. The rejection of claims 1-29 under 35 U.S. C. 102(e) as being unpatentable over Hind (U.S. Publication 2002/0161801 A1)) has been removed as necessitated by amendment and newly found prior art.
5. Claim 30 has been added by Applicant.
6. Claims 1-29 are pending. Claims 1, 4, 15, and 25 are independent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 15, 21, and 23-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Lewis (U.S. Publication 2002/0111924 A1).

As per claim 1, Lewis discloses a method for efficient processing of a document encoded in a markup language including communicating a data model representing the document through a bus of a printed circuit board (See Lewis, Figure 4, and Page 2, paragraph 0023) from a special purpose processor configured for processing the encoded document (See Lewis, Figure 3, element 56, and Page 8, paragraph 0110) to a general purpose processor that is configured for further processing of the encoded document as processed by the special purpose processor (See Lewis, Page 8, paragraph 0112).

As per claim 3, Lewis discloses the limitations of claim 1 as described above. Lewis also discloses that the data model represents a document encoded in XML (See Lewis, Page 4, paragraph 0059).

As per claim 15, Lewis discloses a method for efficient processing of a document encoded in a markup language including a memory (See Lewis, Page 8, paragraph 0226), a general purpose processor operatively connected to the memory for executing computer readable code stored in the memory, the computer readable code configuring the general purpose processor to perform processing distinct from certain processing of documents encoded in the markup language, such as providing centralized collection of monitoring data, compiling inventory and transaction history records, and receiving and distributing reconfiguration data (See Lewis, Page 8, paragraph 0112), and a special purpose processor operatively connected to the memory, the special purpose processor

being specially configured for certain processing of documents encoded in the markup language (See Lewis, Page 8, paragraphs 0108 and 0110), and where the special purpose processor is a dedicated processor (See Lewis, Page 8, paragraph 0110).

As per claim 21, Lewis discloses the limitations of claim 15 as described above. Lewis also discloses that the special purpose processor includes a supplemental general purpose processor for executing computer readable code for processing the document (See Lewis, Page 8, paragraph 0108).

As per claim 23, Lewis discloses the limitations of claim 21 as described above. Lewis also discloses a telecommunications device operatively connected to the general purpose processor and capable of communicating via a communications network (See Lewis, Page 6, paragraph 0082), and a first program stored in memory and executable by the general purpose processor for controlling the special purpose processor to process the document, and for communicating the document, as processed, to a target (See Lewis, Figure 3, element 52).

As per claim 24, Lewis discloses the limitations of claim 23 as described above. Lewis also discloses a second program stored in memory and executable by the general purpose processor for recognizing the document as encoded in the markup language and responsively controlling the special purpose processor to process the document (See Lewis, Figure 3, element 28).

As per claim 25, Lewis discloses a printed circuit board including a general purpose processor for executing computer readable code stored in a memory (See Lewis, Page 8, paragraph 0112), and a special purpose processor operably connected

to the general purpose processor being configured for processing documents encoded in a markup language (See Lewis, Page 8, paragraphs 0108 and 0110).

As per claim 26, Lewis discloses the limitations of claim 25 as described above. Lewis also discloses that the special purpose processor includes a dedicated integrated circuit that is specially configured for processing the document (See Lewis, Page 8, paragraph 0110).

As per claim 27, Lewis discloses the limitations of claim 26 as described above. Lewis also discloses that the processing includes transforming the document (See Lewis, Page 10, paragraph 0145).

As per claim 28, Lewis discloses the limitations of claim 25 as described above. Lewis also discloses that the special purpose processor includes a supplemental general purpose processor (See Lewis, Page 8, paragraph 0108).

As per claim 29, Lewis discloses the limitations of claim 28 as described above. Lewis also discloses a memory operably connected to the supplemental general purpose processor (See Lewis, Page 8, paragraph 0116) and computer readable code stored in the memory and executable by the supplemental general purpose processor for processing the document (See Lewis, Figure 3, element 28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 6, 11-14, 16-20, 22, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (U.S. Publication 2002/0111924 A1) in view of the Microsoft Computer Dictionary, Fifth Edition.

As per claim 2, Lewis discloses the limitations of claim 1 as described above. Lewis also discloses that the method described can be used with XML-based vocabularies (See Lewis, Page 11, paragraph 0154). XML is defined as a condensed form of SGML that lets Web developers and designers create customized tags that offer greater flexibility in organizing and presenting information than is possible with the older HTML document coding system (See Microsoft Computer Dictionary, Fifth Edition, Page 578, definition of XML). Applicant states that mXML is an XML notation (See Instant Application, Page 5, lines 10-12). It would have been obvious to a person of ordinary skill in the art to include mXML, which is an XML notation, in the definition of an XML vocabulary, included as a form of SGML as defined above. Therefore, it would have been obvious to apply the definition of XML to mXML to obtain the invention as specified in claim 2.

As per claim 4, Lewis discloses a method for efficient processing of a document encoded in a markup language including receiving a document intended for delivery to a target (See Lewis, page 5, paragraph 0062, lines 7-8), processing the document using a special purpose processor dedicated to processing documents encoded in the markup language (See Lewis Figure 3, element 56, and Page 8, paragraphs 0108 and 0110), and passing the processed document to the target for further processing by a general

purpose processor (See Lewis, Page 8, paragraph 0112). Lewis shows in Figure 3, the separation between a dedicated XML processor and a general XML processor (See Lewis, Figure 3, elements 56 and 30). Lewis does not disclose expressly including in the general purpose processor a microprocessor that is separate from the special purpose processor. A microprocessor is defined as a central processing unit on a single chip that, when included with memory and power, defines a computer (See Microsoft Computer Dictionary, Fifth Edition, Page 338, definition of Microprocessor). Since Lewis shows the dedicated XML processor to be physically separate from the general XML processor, it would have been obvious to one of ordinary skill in the art to conclude that the a microprocessor, as defined above, would be included with the general processor, separate from the special purpose processor. Therefore, it would have been obvious to apply the definition of microprocessor to the general purpose processor including a microprocessor to obtain the invention as specified in claim 4.

As per claim 6, Lewis discloses the limitations of claim 4 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses performing a transformation on the document (See Lewis, Page 10, paragraph 0145).

As per claim 11, Lewis discloses the limitations of claim 4 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses communicating the document, as processed, to an application process through a bus of a printed circuit board (See Lewis, Page 2, paragraph 0023, and Figure 4).

As per claim 12, Lewis discloses the limitations of claim 4 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses communicating the document, as processed, to a target via a communications network (See Lewis, Abstract).

As per claim 13, Lewis discloses the limitations of claim 4 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses that the target is a local application process (See Lewis, Abstract).

As per claim 14, Lewis discloses the limitations of claim 4 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses that the target is a remote device (See Lewis, Abstract).

Claim 16 is rejected on the same basis as claims 2 and 5.

As per claim 17, Lewis discloses the limitations of claim 15 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses that the method described can be used with XML-based vocabularies (See Lewis, Page 11, paragraph 0154). XML is defined as a condensed form of SGML that lets Web developers and designers create customized tags that offer greater flexibility in organizing and presenting information than is possible with the older HTML document coding system (See Microsoft Computer Dictionary, Fifth Edition, Page 578, definition of XML). Applicant states that mXML is an XML notation (See Instant Application, Page 5, lines 10-12). It would have been obvious to a person of ordinary skill in the art to include mXML, which is an XML notation, in the definition of an XML vocabulary, included as a form of SGML as defined above. Therefore, it would have

been obvious to apply the definition of XML to mXML to obtain the invention as specified in claim 17.

As per claim 18, Lewis discloses the limitations of claim 15 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses that the special purpose processor includes a dedicated integrated circuit that is specially configured for processing the document (See Lewis, Page 8, paragraph 0110).

As per claim 19, Lewis discloses the limitations of claim 18 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses a telecommunications device operatively connected to the general purpose processor and capable of communicating via a communications network (See Lewis, Page 6, paragraph 0082) and a first program stored in the memory and executable by the general purpose processor for controlling the special purpose processor to process the document, and for communicating the document, as processed, to a target (See Lewis, Figure 3, element 52).

As per claim 20, Lewis discloses the limitations of claim 19 above, with reference to the definition disclosed in the Microsoft Computer Dictionary, Fifth Edition. Lewis also discloses a second program stored in the memory and executable by the general purpose processor for recognizing the document as encoded in the markup language and responsively controlling the special purpose processor to process the document (See Lewis, Figure 3, element 28).

As per claim 22, Lewis discloses the limitations of claim 15 above. Lewis also discloses that the method described can be used with XML-based vocabularies (See Lewis, Page 11, paragraph 0154). XML is defined as a condensed form of SGML that lets Web developers and designers create customized tags that offer greater flexibility in organizing and presenting information than is possible with the older HTML document coding system (See Microsoft Computer Dictionary, Fifth Edition, Page 578, definition of XML). Applicant states that mXML is an XML notation (See Instant Application, Page 5, lines 10-12). It would have been obvious to a person of ordinary skill in the art to include mXML, which is an XML notation, in the definition of an XML vocabulary, included as a form of SGML as defined above. Therefore, it would have been obvious to apply the definition of XML to mXML to obtain the invention as specified in claim 22.

As per claim 30, Lewis discloses the limitations of claim 1 above. Lewis also discloses using a special purpose processor dedicated to processing documents encoded in the markup language (See Lewis Figure 3, element 56, and Page 8, paragraphs 0108 and 0110), and a general purpose processor (See Lewis, Page 8, paragraph 0112). Lewis shows in Figure 3, the separation between a dedicated XML processor and a general XML processor (See Lewis, Figure 3, elements 56 and 30). Lewis does not disclose expressly including in the special purpose processor a first microprocessor and in the general purpose processor a second microprocessor separate from the first microprocessor. A microprocessor is defined as a central processing unit on a single chip that, when included with memory and power, defines a computer (See Microsoft Computer Dictionary, Fifth Edition, Page 338, definition of

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Microprocessor). Since Lewis shows the dedicated XML processor to be physically separate from the general XML processor, it would have been obvious to one of ordinary skill in the art to conclude that the a microprocessor, as defined above, would be included with the general processor, separate from the special purpose processor, which would also include a microprocessor. Therefore, it would have been obvious to apply the definition of microprocessor to the general purpose processor including a microprocessor and to the special purpose processor including a separate microprocessor to obtain the invention as specified in claim 30.

Claims 5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (U.S. Publication 2002/0111924 A1) in view of the Microsoft Computer Dictionary, Fifth Edition as applied to claim 4 above, and further in view of Hsu (U.S. Publication 2002/0083096 A1).

As per claims 5, 9, and 10, Lewis, with reference to the Microsoft Computer Dictionary, Fifth Edition, discloses the limitations of claim 4 as described above. Lewis does not disclose expressly parsing the document. Hsu discloses parsing a document (See Hsu, Page 2, paragraph 0021). Lewis and Hsu are analogous art because they are from the same field of endeavor of delivering structured documents over a network. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the parsing of the document of Hsu with the method of Lewis. The motivation for doing so would have been to determine the content structure of a document (See Hsu, Page 2, paragraph 0021). Therefore, it would have been obvious

to combine Hsu with Lewis for the benefit of determining the content structure of the document to obtain the invention as specified in claims 5, 9 and 10.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (U.S. Publication 2002/0111924 A1) in view of the Microsoft Computer Dictionary, Fifth Edition as applied to claim 4 above, and further in view of Kunitake (U.S. Publication 2001/0018697 A1).

As per claim 7, Lewis, with reference to the Microsoft Computer Dictionary, Fifth Edition, discloses the limitations of claim 4 as described above. Lewis does not disclose expressly creating an array-based model of the document. Kunitake discloses creating an array-based model of a document (See Kunitake, Page 14, paragraph 0344). Lewis and Kunitake are analogous art because they are from the same field of endeavor of delivering structured documents over a network. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the array-based model of a document of Kunitake with the system and method of Lewis. The motivation for doing so would have been to identify the child nodes specifying document parts in order to define the document structure (See Kunitake, Page 11, paragraph 0264). Therefore, it would have been obvious to combine Kunitake with Lewis for the benefit of identifying the child nodes specifying document parts to obtain the invention as specified in claim 7.

As per claim 8, Lewis, with reference to the Microsoft Computer Dictionary, Fifth Edition, discloses the limitations of claim 4 as described above. Lewis does not

disclose expressly creating a tree-based model of the document. Kunitake discloses creating a tree-based model of a document (See Kunitake, Page 1, paragraph 0002). Lewis and Kunitake are analogous art because they are from the same field of endeavor of delivering structured documents over a network. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the array-based model of a document of Kunitake with the system and method of Lewis. The motivation for doing so would have been to identify the child nodes specifying document parts in order to define the document structure (See Kunitake, Page 11, paragraph 0264). Therefore, it would have been obvious to combine Kunitake with Lewis for the benefit of identifying the child nodes specifying document parts to obtain the invention as specified in claim 8.

Response to Arguments

Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Jennings (European Patent Application EP 0362903 A2) discloses a special purpose processor for off-loading many operating system functions in a large data processing system.
- Anwar (U.S. Publication 2001/0042078 A1) discloses systems and methods for digital document processing.
- Coppinger (U.S. Publication 2001/0046862 A1) discloses communication systems, components, and methods operative with programmable wireless devices.
- Mikhailov (U.S. Publication 2001/0054046 A1) discloses an automatic forms handling system.
- Scheier (U.S. Publication 2002/0035584 A1) discloses Web site development software with Biztalk Server 2000 integration.
- Gidadhubli (U.S. Publication 2002/0184101 A1) discloses a method and apparatus for integrating with multiple application systems.
- O'Brien (U.S. Publication 2003/0023604 A1) discloses a process for data driven application integration for B2B.
- Harbinger Corporation discloses opportunities and challenges using XML with e-commerce.
- Friedman discloses using XML with the J2EE platform.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurie Ries whose telephone number is (571) 272-4095. The examiner can normally be reached on Monday through Friday from 7:00 AM to 3:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Field, can be reached on (571) 272-4090.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

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- Or: (703) 746-7239 (for formal communications intended for entry)
- Or: (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")
- Or: (703) 746-7238 (for after-final communications)

LR
12/16/2004


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER